



www.caafi.org

SAF Summit & CAAIFI Biennial General Meeting Day-2

June 2, 2022

Washington DC



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Wifi: YTDC_Conference
Password: CBGM22

Mentimeter Polling
www.menti.com **5432 4490**

CAAFI Biennial General Meeting

Introductory Comments and Welcome



Steve Csonka
CAAFI
Executive Director



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Introductory Comments

- **Welcome**
 - **CAAFI Team Introduction**
 - **Logistics**
 - **Anti Trust Statement**
 - **Mentimeter**
 - **Event Sponsors**
 - **Agenda Overview**
- **Helpful information in the Know Before You Go emails**



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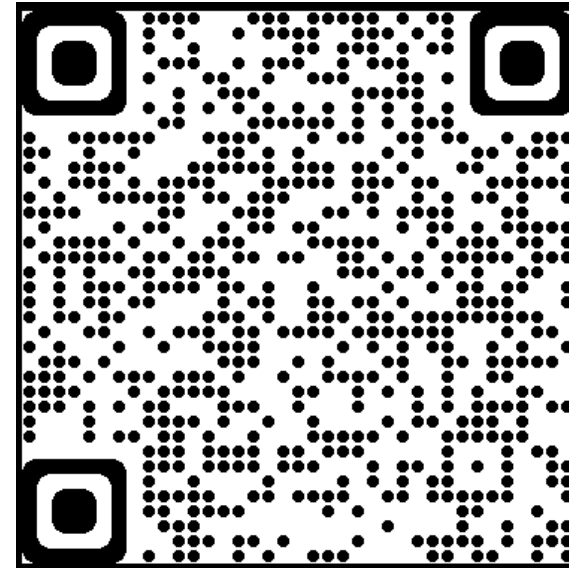
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- **Agenda – accessible online**



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- **Info at bottom of this slide for accessing wifi and social media for posting of comments, photos, and video**
- **We will be using Mentimeter to capture audience feedback to questions.**



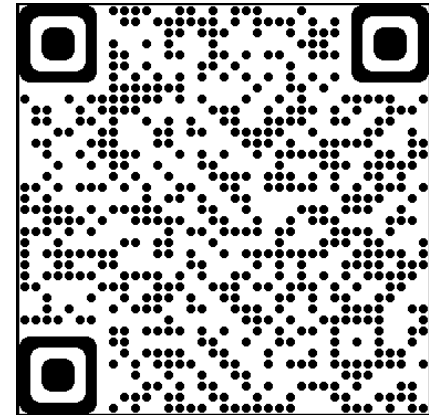
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- **We are performing a Livestreaming of all three days of the combined SAF Summit & CBGM**
 - **To access the Livestream:**
<https://airportscouncil.org/caafi/>



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- **CAAFI's Founding & Organizational Sponsors**



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- **All plenary activities in this room**
- **Breaks in the Pre-Function space to your left.**
- **Lunch in the two rooms behind us**
- **Restrooms straight across from the back door on your left**
- **Emergencies:**

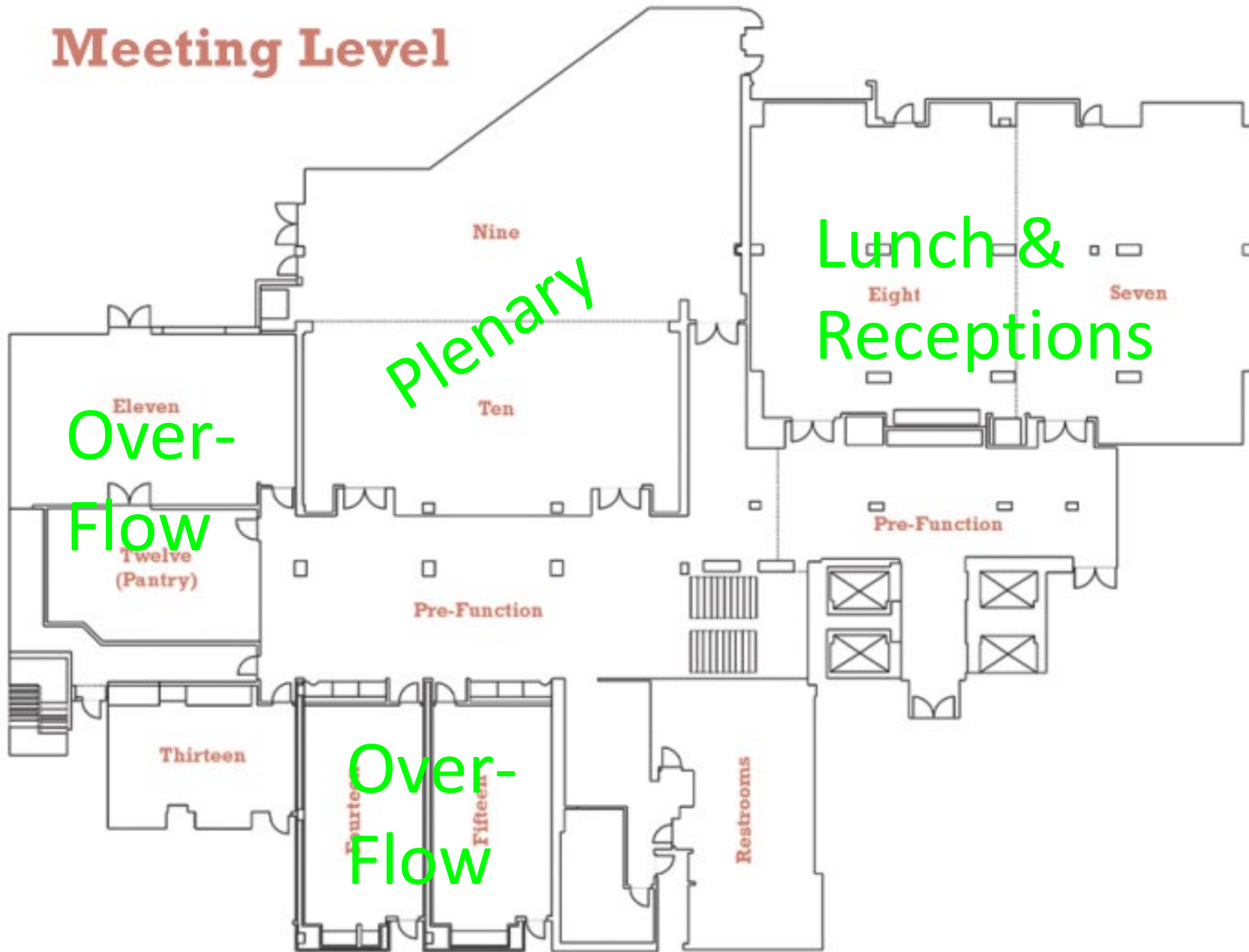


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Meeting Level



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- **Violation of the antitrust laws can result in civil or criminal penalties, or both. These penalties can be severe and can be imposed on companies or individuals, or both.**



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- **Taking into account these antitrust law considerations, participants should not discuss, reach agreements or exchange information about such subjects as:**
 - **Price- or service-related terms**
 - **Division or allocation of markets**
 - **Boycotts or blacklists**
 - **Agreeing on which suppliers to use**

Anti-Trust Statement

The Commercial Aviation Alternative Fuels Initiative (CAAFI) is a volunteer coalition of airlines, aircraft and engine manufacturers, airports, energy producers, researchers, international participants and U.S. government agencies that focuses the efforts of the commercial aviation sector to engage the emerging alternative fuels industry. CAAFI's goal is to promote the development of alternative jet fuel options that offer equivalent safety and favorable costs compared with petroleum-based jet fuel, while offering environmental improvement and energy supply security for aviation. CAAFI is technology-, feedstock- and company-neutral in its work.

Although not itself a company, CAAFI conducts its work and meetings in compliance with antitrust laws, which flow from the basic principle that groups of companies cannot act together to use their economic power to limit or otherwise harm competition. This means that what can be done individually by a firm or entity could be unlawful if done collectively by a group of firms or entities. Something that may seem to make "good business sense" when done by an individual company can injure competition when done collectively or in coordination by a group of companies and, therefore, may be prohibited under the antitrust laws. This is especially so when the collective or coordinated action involves competitors. Violation of the antitrust laws does not require a formal or written agreement among companies.

Violation of the antitrust laws can result in civil or criminal penalties, or both. These penalties can be severe and can be imposed on companies or individuals, or both. Taking into account these antitrust law considerations, CAAFI does not discuss, reach agreements or exchange information about such subjects as:

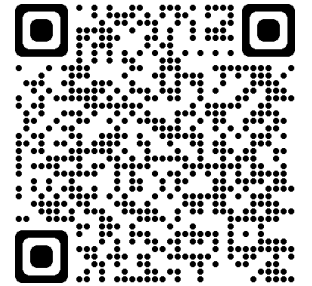
- Price- or service-related terms. For example, CAAFI does not discuss or exchange information about pricing information not otherwise in the public domain and does not take, promote, support or discuss a position on pricing of fuels, feedstocks or fuel services or terms for fuels, feedstocks or fuel services.
- Division or allocation of markets or customers. For example, CAAFI does not discuss or exchange information with respect to limiting the geographic availability of fuels, feedstocks or services or products, dividing up the territory in which fuels, feedstocks, services or products will be provided, or dividing up customers.
- Boycotts or blacklists. For example, CAAFI does not discuss or exchange information with respect to limiting or refusing to do business with a business or customer, group of businesses or customers or category of businesses or customers, or a supplier, group of suppliers or category of suppliers
- Agreeing on which suppliers to use. For example, CAAFI does not discuss or exchange information regarding which suppliers to use or otherwise specify which suppliers to use.

If a SAF Summit / CBGM participant becomes uncomfortable about discussing or acting on an issue because they believe that it is competitively sensitive, the participant should immediately say so and seek the advice of legal counsel before further discussing or acting on it. If so alerted, the lead of the discussion, matter or event should, taking these Guidelines into account, consider steering the discussion away from the area of concern or seeking legal counsel before proceeding on the issue.

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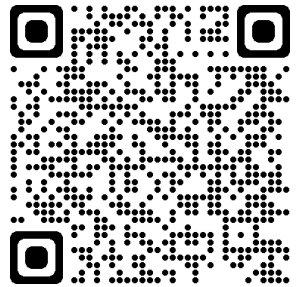
- At various times during the conference, we are interested in capturing audience views
- Log-in to [menti.com](https://www.menti.com) ...
- Enter this code: **5432 4490**
- Enter Submit
- Be prepared to respond to questions as they are highlighted by the moderating team
- Let's try an ice-breaker now



Menti Day-2 Q1:

What one thing do you most want to hear about over the next two days w.r.t. our ability to meet the 3B x '30 goal?

- Log-in to menti.com ...
- Enter this code: **5432 4490**
- Enter Submit
- Respond to question you see



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Keeping it fun!

First Participant's Prize Drawing*

Two Junior Suite Upgrades – Tauvette and Hazen

Second Prize Drawing

Southwest Airlines 737 Max 8 Airplane Model – Max Eichelbaum

Third Prize Drawing

Alaska Airlines 737-900 Airplane Model

Fourth & Fifth Grand Prize Drawings (must be present to win)

American Airlines Boeing 787-9

Technology Livery Airbus A350



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Wednesday

SAF

- Int
- Go
- Fra
- US
- Go
- Pro
- SA
- Per
- SG

Thursday

CBGM

- Res
- Fee
- Nea
- Gov
- Crit
- Sus
- Inn

Friday

CBGM Day 2:

- Supply Chain Groundwork
- Other Enablers
 - Airport Efforts
 - State & Local Policy
- End User Perspectives
 - Airlines
 - Business Aviation
- International Efforts
- Future of SAF
 - Now Through Beyond 2030
 - Evaluation of SAF Benefits



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Thursday

CBGM Day 1:

- Resources Available to Achieve 2030 Goal
- Feedstocks to Support 3B x '30
- Near Term Commercialization Activities
- Government & Aviation Working Together
- Critical Value Proposition – Key Issues
 - ASTM Cert/Qual
 - 100% SAF
- Sustainability & Transparency via Innovative Mechanism

- Evaluation of SAF Benefits



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CAAFI Biennial General Meeting Day 1

Panel Discussion: Funding Resources Available to Achieve Roadmap Targets

Moderator



Steve Csonka,
CAAFI,
Executive
Director

Panelists



**Valerie Sarisky-
Reed,**
DOE Bioenergy
Technologies
Office, Director



Chris Cassidy
USDA RD,
Renewable
Energy
Advisor



Jim Hileman
DOT/FAA-AEE,
Chief Scientific
& Technical
Advisor



William Goldner
USDA-OCS,
Sr. Advisor,
Renewable
Energy, Natural
Resources, and
Environment



Ramsey Fahs
DOE,
Loans Program
Office, Policy
Advisor



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CAAFI Biennial General Meeting Day 1

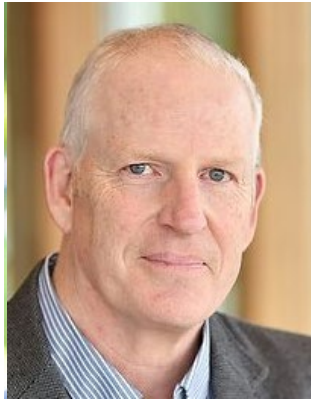
Panel Discussion: Feedstocks and Supply Chains for 2030 Targets

Moderator



William Goldner
USDA-OCS,
Sr. Advisor,
RENRE&E

Panelists



Michael Wolcott
Washington
State University,
ASCENT Director



**Geoff
Cooper**
Renewable
Fuels Assoc.
(RFA), Pres.
& CEO



**Paul
Argyropoulos**
Policy Nexus
Advisors,
President,
Supporting
ABFA



Tim Theis
DOE/ORNL,
Bioenergy
Technologies
Program
Manager



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Special Address – Winter-Cover Oilseed Progress



Jerry Steiner
CoverCress
Chairman

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15 Minute Break

Return at 10:55



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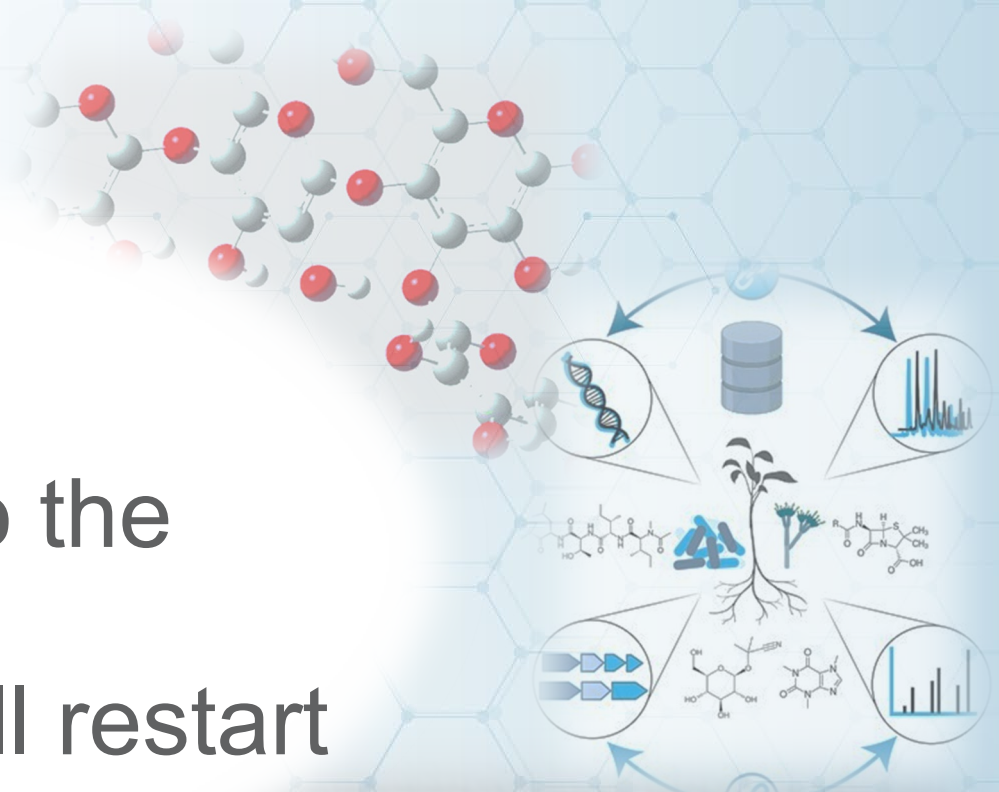
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We're on break, We'll restart
at 10:45



CAAFI Biennial General Meeting Day 1

Near-term Commercialization to Support 3 Billion Gallons of SAF in 2030

Parade of U.S. SAF Commercialization Efforts

Presentations from 16 companies with near-term SAF commercialization activities that have the potential to contribute to the 2030 SAF target, discussing potential for progress as well as key challenges.



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U.S. SAF production forecast

Announced intentions, neat*



By YE '22

2023

2024

2025

2026

2027

- Not comprehensive; CAAFI estimates (based on technology used & public reports) where production slates are not specified. Does not include various small batches produced for testing technology and markets.
- Does not include fractions of substantial Renewable Diesel capacity (existing and in-development) that can be shunted to SAF based on policy support

CAAFI Biennial General Meeting Day 1

Who are these 70+?

AgBioEn

ARA

Biomass Solution

Capergy

Clean Joule

EcoTech

FCL

Gron

IWP

Next

Raven SR

RiverFront

SarTec

Steeper

Another 16+ in the PTL space

Agilyx

Arborata

Byogy

Cetna Energy

Clean Planet

Enerkem

GGES

Hughes Energy

Joseph

Peregrin

Refuel Energy

RUWI

SGP

Vertex

Air Company

Astra

C3 Bio-Tech

Cielo

Covenant

Evolve

GranBio

IL Clean Fuels

LA Green Fuels

Preem

Renew West

SAFFiRE

Sierra

Vertimass

Alleo

Bio Carbon Fuels

Calumet

Cinergic

D'Arcinoff

Expander

Greenfield Global

Indaba

Loring

Rainforest

RiKarbon

SAFuelsX

SixRing

WasteFuel



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CAAFI Biennial General Meeting Day 1

Parade of U.S. SAF Commercialization Efforts - Projected 2030 progress, and key challenges

Gene Gebolys

Pratik Chandhoke

Lindsay Fitzgerald

Benny Wong

Alex Menotti

Jeff McDaniel

World Energy

Neste

Gevo

Fulcrum

LanzaJet

Velocys



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SAF Summit

Lunch: Sponsored by Alder Fuels

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Lunch

Return at 1:15



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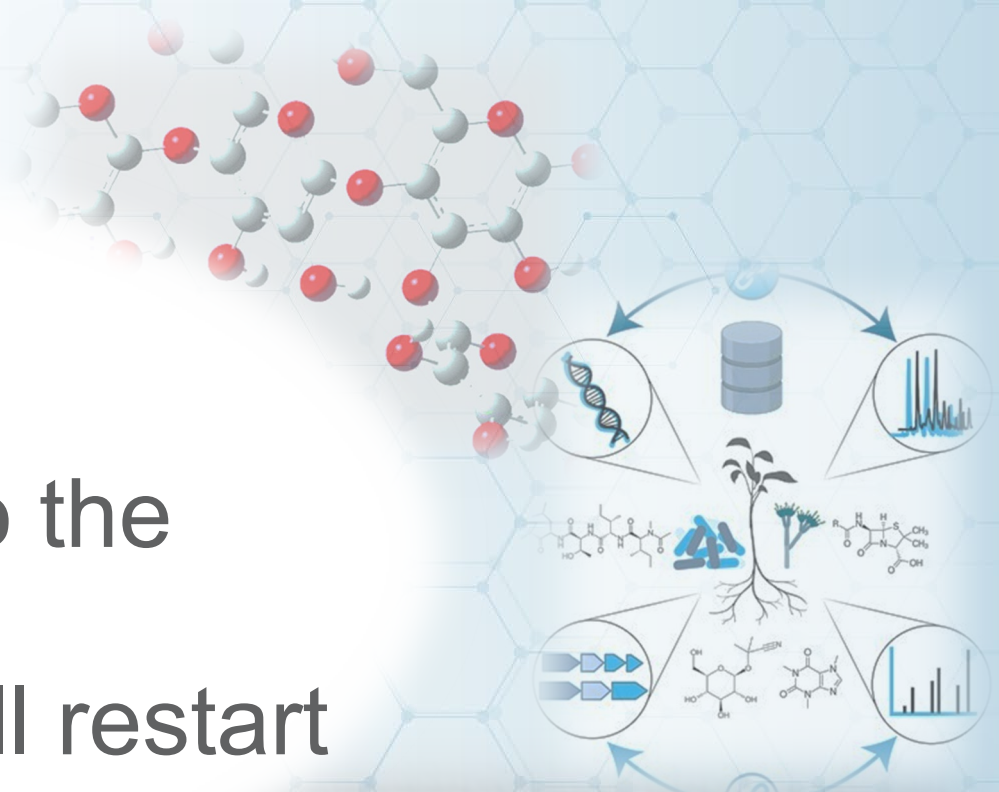




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We're on break, We'll restart
at 10:45



CAAFI Biennial General Meeting Day 1

Parade of U.S. SAF Commercialization Efforts (cont.)

- Projected 2030 progress, and key challenges

Nick Andrews

USA Bioenergy

Amy Malaki

SkyNRG Americas

Bruno Miller

Alder Fuels

Stu Porter

Forge Hydrocarbons

Brice Dally

Virent

Alex Jordan

SAF+ Consortium

Brian Ripsin

Shell Aviation

Dave Stallwitz

Phillips 66



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15 Minute Break

Return at 10:45



CAAFI Biennial General Meeting Day 1

Key Issues to Enable End Use

- ASTM Certification / Qualification Update



Mark Rumizen
FAA,
Sr. Technical
Specialist

CAAFI Biennial General Meeting Day 1

Key Issues to Enable End Use

- 100% Synthetic Aviation Turbine Fuel Update



Gurhan Andac
GE Aviation,
Engr'g
Technical
Leader,
Aviation Fuels



Stephen Kramer
Pratt & Whitney,
Manager,
Combustor
Technology



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CAAFI Biennial General Meeting Day 1

Panel Discussion: Delivering on Sustainability and Transparency via Innovative Mechanisms

Moderator



Aaron Robinson
United Airlines,
Sr. Mgr. Enviro.
Strategy &
Sustainability

Panelists



Adam Klauber
World Energy,
VP
Sustainability
and ESG



Elena Schmidt
Roundtable on
Sustainable
Biomaterials
(RSB), Executive
Director



Tim Obitts
NATA,
Pres. & CEO
Supporting
CoSAFA



**Andre de
Fontaine**
Engie Impact,
Sr. Mgr.
Supporting
SABA



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Closing Remarks



Chris Tindal
CAAFI
Assistant Director



Networking Reception
5:45p
Rooms 7 & 8



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